

## ABSTRACT

The present invention provides a stable and efficient method for stimulating RNAi-related gene silencing effects. The present invention also provides a fast, simple and specific method for generating amplified cDNA-aRNA hybrids whose quantity and quality are high enough to be used in specific gene silencing transfection. This improved RNA-polymerase cycling reaction (RNA-PCR) relies upon a thermocycling procedure of *in-vitro* transcription and reverse transcription to bring up the amount of DNA-RNA hybrids up to two thousand folds within one round of the reaction. The resulting cDNA-aRNA product is useful for silencing either endogenous or exogenous gene expression in transfected cells.